BEST AVAILABLE COPY

Application or Docket Number PATENT APPLICATION FEE DETERMINATION RECORD 2770-600002 Effective October 1, 2001 **CLAIMS AS FILED - PART I SMALL ENTITY OTHER THAN** TYPE [(Column 1) (Column 2) SMALL ENTITY OR **TOTAL CLAIMS** RATE FEE RATE FEE 370.00 BASIC FEE 740.00 **BASIC FEE** NUMBER EXTRA FOR NUMBER FILED OR TOTAL CHARGEABLE CLAIMS minus 20= 13 X\$ 9= X\$18=OR minus 3 = INDEPENDENT CLAIMS X42 =X84= OR MULTIPLE DEPENDENT CLAIM PRESENT +280= +140= OR * If the difference in column 1 is less than zero, enter "0" in column 2 TOTAL TOTAL OR **CLAIMS AS AMENDED - PART II OTHER THAN SMALL ENTITY SMALL ENTITY** OR (Column 1) (Column 2) (Column 3) **CLAIMS** HIGHEST ADDI-ADDI-NUMBER REMAINING PRESENT TIONAL RATE TIONAL **RATE PREVIOUSLY AFTER EXTRA** ENDMEN FEE FEE AMENDMENT PAID FOR 43 X\$18= Minus X\$ 9= Total 93 OR XB4 Independent Minus 10 576 X42= OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM +280= +140= OR TOTAL TOTAL 714 OR ADDIT. FEE ADDIT. FEE (Column 2) (Column 3) (Column 1) HIGHEST CLAIMS ADDI-ADDI-8 NUMBER REMAINING PRESENT RATE TIONAL RATE TIONAL **PREVIOUSLY AMENDMENT AFTER EXTRA** PAID FOR FEE -FEE **AMENDMENT Total** Minus X\$18= ** X\$ 9= OR Independent Minus X84= X42 =OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM +280= +140= OR TOTAL TOTAL OR ADDIT. FEE ADDIT. FEE (Column 1) (Column 2) (Column 3) CLAIMS HIGHEST ADDI-ADDI-NUMBER PRESENT REMAINING TIONAL **PREVIOUSLY** RATE TIONAL RATE ENDMENT **AFTER EXTRA AMENDMENT** PAID FOR FEE FEE Total Minus X\$18= X\$9=OR Minus Independent X42= X84= OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM +280= +140= OR * If the entry in column 1 is less than the entry in column 2, write "0" in column 3. TOTAL TOTAL ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20." ADDIT. FEE ***If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

In re Appln. of PELZ et al. Application No. 09/402,721

- 10. (Previously Presented) The method of claim 9, wherein the cellulase has a crystalline:soluble cellulose activity ratio at 60 minutes of at least about 1.
- 11. (Previously Presented) The method of claim 10, wherein the cellulase has a crystalline:soluble cellulose activity ratio at 60 minutes of at least about 1.2.
- 12. (Previously Presented) The method of claim 4, wherein the cellulase is derived from *Trichoderma*.
- 13. (Previously Presented) The method of claim 12, wherein the *Trichoderma* is *Trichoderma reesei* or *Trichoderma longibrachiatum*.
- 14. (Previously Presented) The method of claim 4, wherein the cellulase is derived from *Thermomonospora*.
- 15. (Previously Presented) The method of claim 14, wherein the *Thermomonospora* is *Thermomonospora fusca*.
- 16. (Previously Presented) The method of claim 4, wherein the porous membrane is contacted with an amylase.
- 17. (Previously Presented) The method of claim 16, wherein the amylase is selected from the group consisting of α -amylase, β -amylase, and the combination thereof.
- 18. (Previously Presented) The method of claim 4, wherein the method further comprises contacting the porous membrane with an aqueous base prior to reusing the porous membrane.
 - 19. (Canceled)
- 20. (Previously Presented) The method of claim 18, wherein the aqueous base is an aqueous solution of NaOH and/or KOH.
- 21. (Previously Presented) The method of claim 18, wherein the base is present in a concentration of 0.1-1 N in the aqueous base.

22. (Previously Presented) The method of claim 18, wherein the porous membrane is contacted with the aqueous base at a temperature of 40-90 °C.

23. (Canceled)

- 24. (Previously Presented) The method of claim 4, wherein the porous membrane is contacted with α -amylase at a temperature of 60-75 °C and a pH of 4.6-5.8.
- 25. (Previously Presented) The method of claim 4, wherein the porous membrane is contacted with β -amylase at a temperature of 40-60 °C and a pH of 4.6-5.8.
- 26. (Previously Presented) The method of claim 4, wherein the porous membrane is cleaned until the zeta potential of the porous membrane ceases to change.
- 27. (Previously Presented) The method of claim 4, wherein the time that the porous membrane is in need of cleaning is determined by the pressure drop across the porous membrane.
- 28. (Previously Presented) The method of claim 4, wherein the method further comprises determining the time that the porous membrane is in need of cleaning by determining the streaming potential or zeta potential of the porous membrane.
 - 29. (Previously Presented) A method for producing beer comprising:
- (a) filtering beer through a porous membrane that progressively clogs during filtration,
- (b) monitoring the streaming potential or zeta potential of the porous membrane as a measure of the extent of clogging of the porous membrane,
- (c) halting filtration of the beer through the porous membrane before the porous membrane becomes fully clogged as determined by the streaming potential or zeta potential of the porous membrane,
 - (d) cleaning the porous membrane, and
 - (e) then reusing the porous membrane to continue filtering beer.

In re Appln. of PELZ et al. Application No. 09/402,721

- 30. (Previously Presented) The method of claim 28, wherein the filtration is halted when the streaming potential or zeta potential of the porous membrane is reduced to 20% of its original value for the unused porous membrane.
- 31. (Previously Presented) The method of claim 4, wherein the porous membrane is a polyamide porous membrane.
- 32. (Previously Presented) The method of claim 31, wherein the filtration is halted when the zeta potential of the porous membrane exceeds -5 mV as measured at pH 4.2.
- 33. (Previously Presented) The method of claim 4, wherein the filtering of the beer is cold-filtering of the beer.
 - 34. (Canceled)
 - 35. (Canceled)
- 36. (Previously Presented) The method of claim 29, wherein cleaning the porous membrane comprises contacting the porous membrane with a cellulase having a crystalline:soluble cellulase activity ratio at 60 minutes of at least about 0.1 to clean the porous membrane.
- 37. (Previously Presented) The method of claim 4, wherein the porous membrane is a nylon-6,6 membrane.
- 38. (Previously Presented) The method of claim 4, wherein the porous membrane has a pore rating of about $0.02-1~\mu m$.
- 39. (Previously Presented) The method of claim 38, wherein the porous membrane has a pore rating of about 0.1-1 μm
- 40. (Previously Presented) The method of claim 39 wherein the porous membrane has a pore rating of about $0.45 \ \mu m$.

In re Appln. of PELZ et al. Application No. 09/402,721

- 41. (Previously Presented) The method of claim 4, wherein the method further comprises pre-filtering the beer before filtering the beer through the porous membrane.
- 42. (Previously Presented) The method of claim 41, wherein the beer is pre-filtered through Diatomateous earth or a combination of Diatomateous earth and deep-bed filtration.